

June 2002

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Recommended Citation

Binder, Michael (2002) "Inside Pandora's Box -- The Development of the First PDA Library Portal for Academic Libraries," *Against the Grain*: Vol. 14: Iss. 3, Article 30.

DOI: <https://doi.org/10.7771/2380-176X.4003>

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Inside Pandora's Box — The Development of the First PDA Library Portal for Academic Libraries

by **Michael Binder** (Dean of Libraries, Western Kentucky University) <mike.binder@wku.edu>

Column Editor: **Jack G. Montgomery** (Western Kentucky University) <jack.montgomery@wku.edu>

Column Editor's Note: This article has been independently reviewed by three ATG editors due to the relationship that exists between myself and Dr. Binder. — JM

The idea of a **PDA Library Portal** at **Western Kentucky University** began with my attending the **LITA Preconference** on "Handheld Computers: the Technologies and their Applications" at the **ALA Annual Meeting** in San Francisco in June 2001. There I learned from the experts including **Dave Johnson**, author with **Dick Broida** of texts on both the **Palm** and **Visor** handheld computers published by **McGraw-Hill**; and **Mari Stoddard** of the **University of Arizona's Health Sciences Library**, who had pioneered applications of handhelds for health sciences libraries — about the wide range and variety of applications being made of these micro-computers that just fit into the palm of your hand. Most importantly, I learned that some libraries were taking the initiative in promoting use to the extent of purchasing the equipment for staff. It was reasoned that a library couldn't begin to think about — let alone create — applications utilizing handhelds if its staff didn't themselves know about their operation, understand their features and comprehend their inherent benefits.

I returned to my library convinced that handhelds presented us with opportunities for creative library applications that we should begin to explore. Following the advice of the Preconference, I planned to start a program of targeted handheld purchases, starting with myself to gain firsthand knowledge of their operation and the idiosyncracies of the technology itself. Hence I was the first to acquire one and chose a **Palm** model mainly because it seemed the easiest to operate.

Initially I learned the basic functions of keeping my calendar, address book, and "to do" lists up-to-date using the device. Early on I also found that data on my **Palm** handheld could be synchronized and backed up using the "cradle" that came with the device through a connection to the USB of my desktop computer; and that all the functions on my **Palm** were operable too on my desktop computer via the **Palm Desktop Operating System**.

Once I felt comfortable with the technology, it seemed logical to proceed to the individual who was the most comfortable with computers and excelled in finding innovative applications of the Web, our Website and Virtual Library Coordinator (hereinafter re-

ferred to as the Web Coordinator). In speaking with him about purchasing one and later being reimbursed, I was stymied at first. He resisted, saying that he didn't want to have one, feeling he would be looked at as being favored. I persisted, eventually convincing him. Had his reluctance persisted and I had given up persuading him otherwise, our development of PDA applications would surely have foundered. Instead, it prospered as the Web Coordinator gradually fell in love with his new tool and — given his adeptness with computers — rapidly gained an advanced expertise and even started showing off his new tool (at the time, looked upon more likely as his new toy — at best as a gadget — to his library colleagues).

Now both of us had a PDA — I had purchased a **Palm** and the Web Coordinator had acquired a **Pocket PC**; I had requested reimbursement from the University, fully expecting it to come since I was seeking to use University private, discretionary funds for the two purchases. Losing patience with the delay in obtaining these reimbursements, I placed a call and learned the cause. Apparently several concerns were being expressed, including the primary one, that both purchases were being looked at as **Palm Pilots** (despite my protests to the contrary, stressing that the Palm technology had advanced way beyond the initial mainly "organizer" functions of the early Palm machines, called **Palm Pilots**) which the University considered to be personal purchases from the belief that its purchasers used the equipment for primarily "personal" uses, such as scheduling, address lists, "to do" lists, etc.; and furthermore, if they were approved, it would set a precedent and open the flood gates for similar requests across campus. I was advised that I would need the approval of my administrative superior, the University Provost, for the purchases to be approved for reimbursement and that she would be advised that by approving them, she would be setting a precedent for future such purchases.

Looking back, this was truly a major hurdle to our future development. How could I possibly acquire PDAs for our librarians — remember, a key suggestion at the **ALA Preconference** for developing an understanding of the technology, itself a prerequisite for devising PDA-based applications — if my university was unwilling to provide for their

reimbursement? Librarians are sometimes perceived as unduly altruistic, but expecting them to *pay* for their own PDA purchases for a library learning and exploration project was certainly beyond reality.

It was clear that the next step had to be approached carefully if the project was to continue, which was to meet with the Provost and explain why I was interested in making these purchases and their planned use in our library experimentation. At the time, I only emphasized their potential use in eBook applications we were planning, while at the same time de-emphasizing their personal applications. Following our meeting, I sent her a formal request elaborating my rationale.

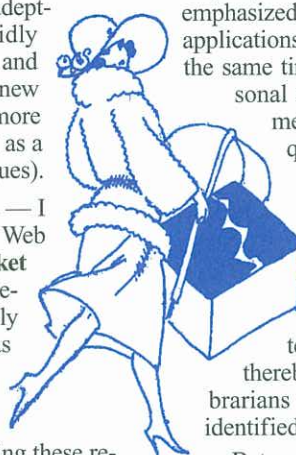
Success! The Provost approved the two PDA purchases, indicating in agreement with me that they would be mainly used for the library's exploration of potential library applications, and thereby clearing the way for other librarians to acquire PDAs for clearly identified library projects.

Between July (when the Provost approved our initial handheld acquisitions) and December 2001, the Web Coordinator and I continued to experiment with the PDA technology. During this time of experimentation I learned that **Oberlin College** had recently become the first university to enable its college newspaper, the *Oberlin College Review*, to be downloaded in a "PDA" version to users of PDAs. At this revelation, I thought it might be possible for our library to create the first academic library portal for PDAs, and discussed my idea with the Web Coordinator.

In December, just before we left for the holidays, I established a Task Force on the **PDA Library Portal**, charging it to collaborate together to design and develop a library portal that will incorporate selected features appropriate for access with a handheld computer/PDA. I also indicated my expectation that its task would include the timely conduct of surveys to assess the possible user population and the portal features that would be of most interest and value. Finally I stressed this work would be pioneering in exploring a new and potentially highly valuable new library service and tool.

In the actual practice of library administration, as with most things, the best laid plans don't always work out as originally conceived.

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In this case, although I had planned on the *design* of the portal resulting from a collaborative development, in fact the opposite occurred. Over the vacation, the Web Coordinator spent a large amount of time experimenting with **AvantGo** (www.AvantGo.com), which he learned **Oberlin College** was using to "port" or distribute its *Oberlin College Review* to users of PDAs, and independently designed and developed a prototype of our **PDA Library Portal** and made it accessible from the **AvantGo** Website.

Upon my return from vacation, the Web Coordinator proudly revealed the first version of the **PDA Library Portal** to me, calling it a draft prototype and said that **AvantGo** would allow up to seven PDA users to download the portal at no charge, considering it a research and development effort at this stage, and proceeded to download the **PDA Library Portal** onto my **Palm** device via its cradle mechanism. Thus the birth of our PDA-based library portal.

Soon after I started using the **PDA Library Portal**, I realized that the **Palm** device with its **Palm** operating system enjoyed inherent advantages over the **Pocket PC** with its **Microsoft** operating system. I encouraged the Web Coordinator to obtain a **Palm** for himself and together we decided that our **PDA Library Portal** project would use the **Palm** rather than the **Pocket PC** or any of the **Microsoft**-enabled handhelds. This was not your basic anti-**Microsoft** bias functioning but resulted instead from my clear recognition that the **Palm** was more user-friendly for text-based applications such as ours; specifically, it (the **Palm**) allowed the complete text to be viewed by simply scrolling up and down the page, whereas, systems using the **Pocket PC** Windows system required users to move right and left on the page, as well as up and down — representing a major user inconvenience.

While we were continuing to gain forward momentum, we still had not yet engaged in essential next steps, which were for our librarians to gain increased familiarity with handhelds themselves and, once that occurred — hopefully with wholly positive reactions and support — involve them both in the continued development and advocacy that would be required for its success on campus. In my earlier appointment back in December, I had asked them to work collaboratively with the Web Coordinator; now that was impossible, given its independent development. A rethinking of the role of the task force led then to significant revision of its initial charge. Clearly mindful of the fact that we wanted them to serve as advocates and experienced users for both the general use of PDAs and specifically for the **PDA Library Portal** both within and outside the library, I noted that due to the innovative work of the Web

Coordinator, we now literally had in our hands a **PDA Library Portal** prototype, and said I was significantly revising its task to one of providing the Web Coordinator with its input and advice regarding the further development of the portal.

I proceeded to purchase PDAs for the members of the Task Force; units were acquired as well for the members of other task forces with projects that might also have potential for PDA applications, such as our task forces charged with developing eBook and e-Reference implementations. Training sessions led by the Web Coordinator next ensued for those acquiring the devices as well as for library personnel in general. In addition, a general presentation to which the campus community was invited was held during our annual **National Library Week** celebration that focused upon the PDA and also served as an unveiling of the **PDA Library Portal** prototype.

This brings us to the present time. We now have a prototype limited to being downloaded to only seven PDA users (which fortunately include all the members of the Task Force on the Development of the **PDA Library Portal**, as well as the Dean of Libraries and the Library Development Director) and also are in the process of seeking private/development funds to make it available to the public via the **AvantGo** server.

Our research to date indicates that library use of the PDA technology in the U.S. is primarily from health science libraries with just two exceptions: the **Lincoln Trail Library System** (<http://ltnet.ltls.org/pda.html>), a large public library system in Illinois; and the **Ford Motor Company Library** (contact **Ken Varnum**, Head of Web Development at Ford's Library Systems and Information Research Department, for more information at <kvarnum@ford.com>). Some of the health science libraries also provide extensive Web guides to the PDA literature, such as **Johns Hopkins University** (www.welch.jhu.edu/internet/pda.html), **Virginia Commonwealth University** (www.library.vcu.edu/tml/bibs/pda.html), and the **University of Alberta** (www.library.ualberta.ca/subject/pdas). Health science libraries at the **University of Arizona** (www.ahsl.arizona.edu/journals/ejrnls/pdas.cfm), **Yale University** (www.med.yale.edu/library/pdachannel), the **University of Texas-San Antonio** (www.library.uthscsa.edu/internet/pda.cfm), have taken the further step of developing what is called "channels" with information customized to meet the needs of their users.

Outside of libraries, but staying within the university umbrella, it should be noted that in addition to the *Oberlin College Review* being made available on PDAs (via www.oberlinreview.org/pda/pda.htm), the **University of Georgia** has been actively developing palm-sized versions of its daily news that PDA users may download at www.uga.edu/events/hand with editions

available both with images and text-only, as well as for Web-enabled phones and other WAP devices through this URL: www.uga.edu/wap.

The **WKU (Western Kentucky University) PDA Library Portal** represents the first PDA version of a library portal by an academic library, one with a comprehensive rather than a special focus. While, as noted above, due to insufficient funds currently, the portal cannot be widely downloaded to PDAs, the contents of the entire site may be viewed by opening the **PDA Library Portal's** demonstration Website at www.wku.edu/Library/tip/pda/index.htm. By viewing it firsthand, you will see that it encompasses a sizeable amount of content and consists of the following main items on its menu with links to substantial, yet valuable information:

About the Libraries & Museum
Library Resources
Library Services
Museum Exhibits
Kentucky Building Online
Research Guides
Topper InfoPortal
Kentucky Virtual Library
Development Office

Acquisitions and Collection Development librarians may find the Research Guides of special interest. An exact, full-text replica of those we make available as one of the features of the **Topper InfoPortal** (a Web portal designed by **WKU** to streamline access to a wide range of information. Located at www.wku.edu/Library/tip), the guides were developed by **WKU** public services librarians in close collaboration with the faculty in the **WKU** colleges. Guides are available for each department at the University and include such basic information as the main **Library of Congress** subject divisions and call number ranges, the indexing/abstracting/full-text services, the monographic reference works in the **WKU Libraries**, the Web pages of the department's faculty, and the Websites of related professional societies/organizations. **Collection development** is automatically enhanced by the ongoing analyses and resultant new acquisitions required to maintain the guides.

As to the immediate future, after funding is secured, we envision a "button" or link on both our homepage and the **Topper InfoPortal** that will take PDA users to a tutorial that will step-by-step enable them to load our **PDA Library Portal** on their PDAs. At that time we also intend to mount a major marketing effort designed to promote the use of the portal among campus PDA users. PDA use studies are currently being conducted to determine the current campus PDA user population as well as to learn features desired for the portal by our potential users.

Looking further into the future, I fully expect our **PDA Library Portal** to add wire-

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And They Were There — Reports of Meetings

University of Oklahoma Libraries Conference and ALHHS 2002 Conference

Column Editor: **Sever Bordeianu** (University of New Mexico General Library) <sbordeia@unm.edu>

University of Oklahoma Libraries Conference "Electronic Resources and Collection Development" Oklahoma City, March 7-8, 2002

Report by **Linda K. Lewis**

The *University of Oklahoma Libraries* held its annual conference on collection development at Oklahoma City on March 7-8, 2002. The theme was "Electronic Resources and Collection Development" and the presenters discussed a wide range of related topics.

Jay Jordan, the President of OCLC, reviewed current trends and initiatives related to electronic collection development. Selection criteria were, and still are: quality, cost, relevance to the library's needs, and aesthetics. In addition, criteria for electronic resources include: vendor reliability, licensing, a good search engine, and a good interface. There is a shift from collection-centered libraries that define themselves by the size of their collections to user-centered libraries that define themselves by the services they provide to users. Libraries must pay attention to the ways in which their users hunt for information — online, always available, and well organized; if they don't, libraries run the risk of being circumvented. Libraries must make sure their names appear on the electronic products made available through the library; the users must know that these products are not free on the Internet but are paid for by the library.

Jordan talked about OCLC and its development and recent acquisitions. OCLC acquired **netLibrary** in January. It has about 6,600 libraries purchasing electronic books from over 300 publishers, with about 40,000 titles, and OCLC looks forward to expanding. In **netLibrary**, libraries can now order items directly, and can profile online so that

netLibrary will notify them when new titles are available. OCLC has about 4,000 jour-

nals in **ECO**, along with numerous indexes and abstracting tools. OCLC is also working with the **Library of Congress** on a project to supply 24/7 reference. They are forming a digital co-op that will focus on digital preservation; the metadata could be in **WorldCat**;

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JOHANN HEINRICH LAMBERT'S

PHOTOMETRIA

1760/2001

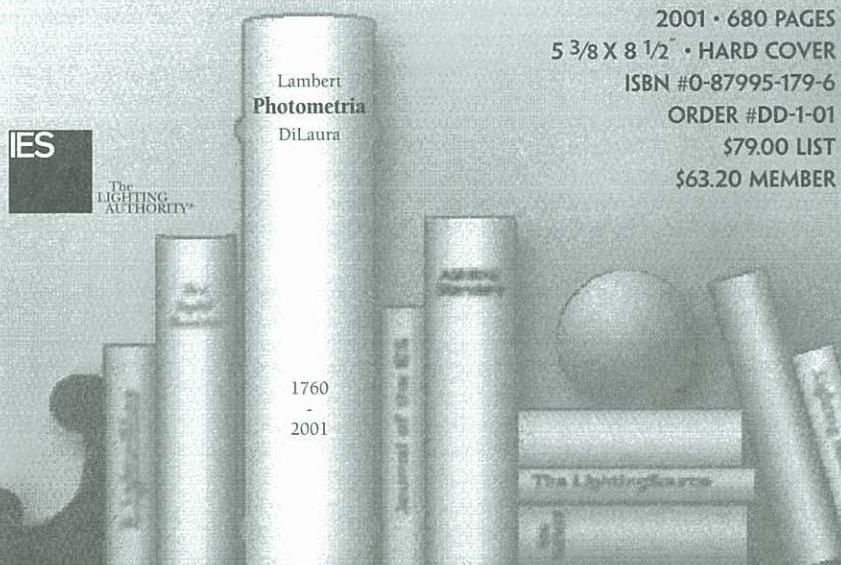
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WITH INTRODUCTORY MONOGRAPH AND NOTES BY DAVID L. DILAURA

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less Internet capabilities with all the assets of a fully integrated online library system. Recently, in fact, it was reported that **Endeavor** demonstrated a prototype wireless **Voyager OPAC** designed by two students at **Western Michigan University**. At the time this article was written, the wireless **OPAC** was still owned by the Western Michigan students, although **Endeavor** was expected to make a statement soon regarding possible plans to make this prototype work either on **SupportWeb** or through **Endeavor**. Certainly the times are a-changing. 



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